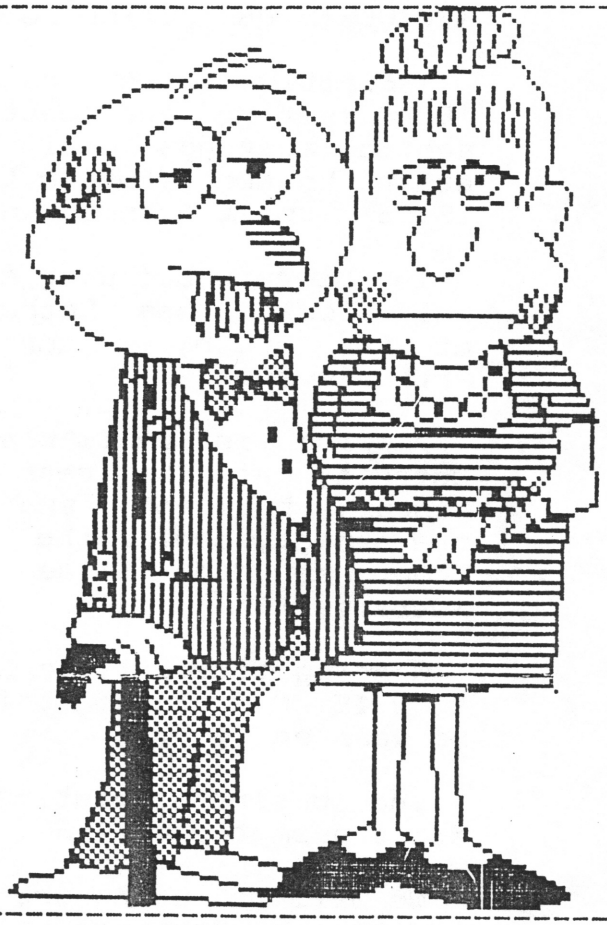
THE RAMTOP

APRIL 198<

PUBLISHED BY THE
GREATER CLEVELAND SINCLAIR USERS GROUP

EXTRA!!! YOU SAW IT HERE FIRST!!
According to the 4/8/86 WALL ST. JOURNAL, SINCLAIR RESEARCH has been sold to AMSTRAND Computers! More details next month!!!



HEAR YE HEAR YE
****
NEW WEST SIDE
MEETING PLACE
****

LAKEWOOD PUBLIC LIBRARY -15425- DETROIT AVE. LAKEWOOD, OHIO

* TIME *
7:00/9:15 PM
* WHEN *
EVERY 3rd FRI. EACH MONTH !!

ELEVATORS AVBL

SEE YOU THERE!

WEST SIDE GROUP MEETS AT GETHSEMANE LUTHERAN CHURCH
14540 MADISON AVE LAKEWOOD OHIO 7:30 P.M.
EVERY THIRD FRIDAY EACH MONTH (EXCEPT DECEMBER)
CONTACT: DICK SIEG (216) 433-4387

LOST OUR WEST SIDE LEASE !

EAST SIDE GROUP MEETS AT THE EUCLID SQUARE MALL
IN THE EUCLIDIAN ROOM 7:30 P.M.
EVERY FIRST FRIDAY EACH MONTH
CONTACT: MAX SCHOENFELD (216) 371-1096

A short note to our friends from other newsletters and magazines. You are welcome to use any of our material, news, adds, or programs if YOU: (1) Tell where it came from (RAMTOP Cleveland, Ohio) and (2) The author's name that wrote the article. We would appreciate it if you would send us a copy of the newsletter that it appeared in/ Unless otherwise notified we will do the same.

THANK YOU FOR YOUR INTEREST IN OUR NEWSLETTER !

THE TSU-BBS IS ALIVE

SYSOP:Chris Raynak PHONE:216-327-1099 PARAMETERS:8/2/N PASSWORD:sieg

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T/S RESOURCES

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hardware news/rumors software literature

April 1986 by Andy Kosiorek

Technical References:

Times Designs Magazine has republished the Timex 2068 Technical Manual in a spiral bound format for $25.00. They have corrected all known errors of the original publication and are including schematics. Order from Time Designs Mag. Co. 29722 Hult Road, Colton, OR. 97017.

SAMS has published a "Computerfacts" on the Sinclair/ Timex models ZX81/TS-1000. It is SAMS #CC14, dated 3-86. It contains 13 pages plus a 5 page appendix. Along with the usual schematics are block diagrams, grid traces, line definations, IC pinouts, logic charts terminal guides, photos, parts lists, and trouble shooting guides.

Copies should be available at major electronic parts stores.

The Cuyahoga County Library System has a set that may be borrowed.

Cincinati Computer Fest:
May 3 & 4th
Ramada Inn,
I-275, Sharonville Exit
Cincinnati, Ohio

To date 15 vendors, six publishers, and 4 Users Groups have signed to exhibit at the Fest. At least 500 attendees are expected for the two day event. See the Feb. issue of the Ramtop for complete details. The Cleveland Users Group will have a display.

TIMEX 6820 COMPUTER:

The Mar-Apr issue of Syncware News reports that TIMEX-USA will return to the computer market with a 68020 based PC. The 6820 will have a propriety operating system-TUNIX-(Timex Unix). It is to be CPM-80, MSDOS, PCDOS and CPM 68K compatible. It also will have special software to run Spectrum, 2068 & ZX81 programs. Some type of official announcements from Timex are expected in April. More next month if this is not an April Fools joke??????

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CLUB NEWS

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APRIL 1986

NEW WESTSIDE MEETING LOCATION:

Effective with the April 18th meeting the West Side section meetings will be held at the Lakewood Public Library, 15425 Detroit Avenue, Lakewood.

The Library building ocupies a half block along Detroit Ave. at the southeast corner of Arthur Avenue.

Parking is available along Detroit, at the rear of the Library building, and accross the street, behind the Discount Drug Mart and Elias Big Boy Restaurant.

Meeting time will be from 7 PM to 9:15 PM. The building must be vacated by 9:30.

The business meeting will start promptly at 7:30.

We will be using the basement Auditorium. Entrance is from a stairwell at the Detroit Avenue entrance. A elevator is available. --NO Smoking--

Long extension cords and plug strips will be required for any equipment demos.

see you there,
Andy Kosiorek, pres.

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Here is a FREE AD:

FOR SALE----------T/S 1000
I HAVE T/S 1000,S THAT HAVE BEEN TESTED AND-OR REPAIRED. $10.00 EA. ALSO PARTS FOR THE ABOVE.CALL OR WRITE FOR PRICES. 216-944-8630
DEAN MILLER
29324 PARK ST.
WICKLIFFE,OHIO
44092

SEE THE MAP ON THE BACK PAGE!

CHECK TAPE SPEED ON YOUR TS1000, 1500 or 2068
THE EASY WAY

* Taken from "Control things with your Timex Sinclair"
by Robert Swarts

Possibly the programs you've written and saved will load, but other tapes wont. This may indicate that your recorder or the recorder used to make the other tapes has tape speed or head azimuth problems. If no other tapes will load, its probably yours. If just one or two tapes wont load (especially if they're from the same other recorder) its probably the other machine. You can check your recorder's speed against the other recorder's, very easily.

Lines 10-30 comprise a simple Audio Generator (about 3 Khz). Lines 40-60 comprise a Frequency Counter, the frequency it measures will get displayed on the TV screen.

First, type in the program as you see it. Line 1 consists of a "REM" statement followed by 115 x's, which will be used to hold the machine language.

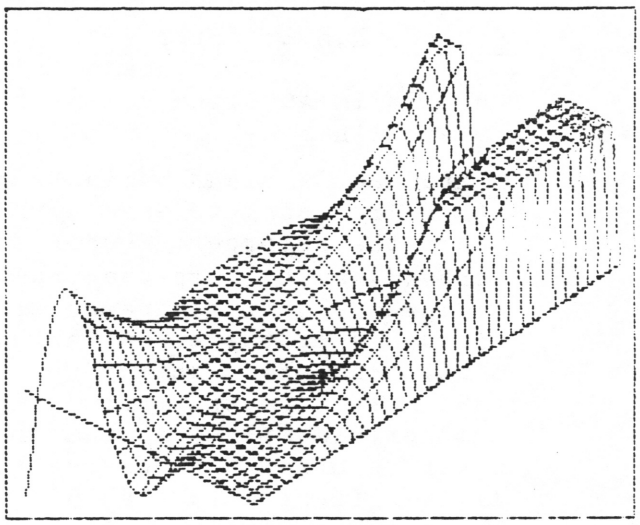
Second, Run 2; enter -
This loads the Rem statement with the machine code that is in **A$** (line 2). After the computer stops at line 7, then delete lines 2-7.

Third, Put a blank 5 minute tape in and prepare the recorder as if you're going to save a program. Type in Run 10; enter and start the recorder. Record several minutes, then press the "break" key to stop the program. Now, Run 40; enter and on the TV screen, with the recorder on "play", one should see the frequency of the audio on the tape that was just recorded. It should be well within 50 hz of what you recorded and should not vary more than that from sample to sample; otherwise, you've got intolerable speed fluctuations. Now play the tape back on the other recorder and observe the displayed frequency on the TV screen. If it differs more than 50 hz, then one or both of the recorders has a speed problem. If everything checks out so far, then one should consider a head azimuth alignment.

```
1  REM xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
     xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
2  LET A$="CD230F3E7FDBFE1FD0000061F10FED3FF061F10FE18EDCD230F
        1101002100044DDBFE19380E1730F803DBFE19380517 38F818ED
          CD2015EF2D303400043C80462BFF540F0530804645 24C004A2
        0F24303A7AC534CD55CBAFD73E30D73E2DD73E3FD7CD2B0F01FFFF
          CB78B120FBCD2A0A18A4"
3  FOR F=16514 TO 16627
4  POKE F,16 x CODE A$(1) + CODE A$(2) - 476
5  LET A$=A$(3 TO)
6  NEXT F
7  STOP
10 REM AUDIO GENERATOR
20 RAND USR 16514
30 STOP
40 REM FREQUENCY COUNTER
50 RAND USR 16536
60 STOP
```

***NOTE: in Line 2, "0" = Zero

```
  10 REM CONVERTED FROM APPLE II
 TO TS-2068 BY T.A.KNYSZEK
  20 REM DOWN LOADED FROM BYTE
 MAGAZINE'S BBS
  90 DIM H(280)
 100 LET XO=100
 110 LET YO=170
 120 LET PHI=.5
 130 LET PSI=.4
 140 LET XL=0
 150 LET XR=170
 160 LET YL=0
 170 LET YR=100
 180 LET T=5
 190 REM * FUNCTION TO BE PLOTED
 200 DEF FN Y(X)=SIN (Y/F)*(X-Y)
*(X-Y)/150
 210 LET F=10
 240 REM * ABBREVIATIONS AND
CUTTING THE TOP
 250 LET CF=COS PHI: LET SF=SIN
PHI: LET CP=COS PSI: LET SP=SIN
PSI
 260 LET H=YO-XR*SF-YR*SP-2
 270 INPUT "DO YOU DESIRE CROSSH
ATCHING ?   (Y/N) ";T$
 275 LET CH=1
 280 IF T$="Y" OR T$="y" THEN LE
T CH=2
 300 INPUT "DO YOU WISH TO VIEW
THE AXES ?  (Y/N) ";T$
 310 IF T$="N" OR T$="n" THEN GO
 TO 340
 315 LET A=XO+XL*CF: LET B=175-(
YO-XL*SF): LET C=XO+XR*CF: LET D
=175-(YO-XR*SF)
 320 PLOT A,B: DRAW C-A,D-B
 325 LET A=XO-YL*CP: LET B=175-(
YO-YL*SP): LET C=XO-YR*CP: LET D
=175-(YO-YR*SP)
 330 PLOT A,B: DRAW C-A,D-B
 340 PLOT 0,0: DRAW 0,175: DRAW
255,0: DRAW 0,-175: DRAW -255,0
 400 FOR R=1 TO CH
 420 FOR I=1 TO 280: LET H(I)=18
9: NEXT I
 430 IF R=1 THEN GO SUB 1000
 435 IF R=2 THEN GO SUB 2000
 440 NEXT R
 500 STOP
1000 REM * PLOTTING
1010 LET Y=YL
1020 FOR X=XL TO XR
1030 LET XB=INT (XO+X*CF-Y*CP+.5
)
1040 LET Z=FN Y(X): IF Z>H THEN
LET Z=H
1050 LET YB=INT (YO-X*SF-Y*SP-Z+
.5)
1060 IF YB<H(XB) THEN LET H(XB)=
YB
1070 NEXT X
1100 FOR X=XL TO XR STEP T
1110 LET U=XO+X*CF: LET V=YO-X*S
F
1120 FOR Y=YL TO YR
1130 LET XB=INT (U-Y*CP+.5)
1140 LET Z=FN Y(X): IF Z>H THEN
LET Z=H
1150 LET YB=INT (V-Y*SP-Z+.5)
1160 IF YB<H(XB) THEN LET H(XB)=
YB
1170 NEXT Y
1200 FOR K=INT (U-YR*CP+.5) TO I
NT (U-YL*CP+.5)-1
1210 PLOT K,175-(H(K)): DRAW (K+
1)-K,(175-(H(K+1)))-(175-(H(K)))
1220 NEXT K
1230 NEXT X
1240 RETURN
2000 REM * PLOTTING CROSSHATCH
2010 LET X=XL
2020 FOR Y=YL TO YR
2030 LET XB=INT (XO+X*CF-Y*CP+.5
)
2040 LET Z=FN Y(X): IF Z>H THEN
LET Z=H
2050 LET YB=INT (YO-X*SF-Y*SP-Z+
.5)
2060 IF YB<H(XB) THEN LET H(XB)=
YB
2070 NEXT Y
2100 FOR Y=YL TO YR STEP T
2110 LET U=XO-Y*CP: LET V=YO-Y*S
P
2120 FOR X=XL TO XR
2130 LET XB=INT (U+X*CF+.5)
2140 LET Z=FN Y(X): IF Z>H THEN
LET Z=H
2150 LET YB=INT (V-X*SF-Z+.5)
2160 IF YB<H(XB) THEN LET H(XB)=
YB
2170 NEXT X
2200 FOR K=INT (U+XL*CF+.5) TO I
NT (U+XR*CF)-1
2210 PLOT K,175-(H(K)): DRAW (K+
1)-K,(175-(H(K+1)))-(175-(H(K)))
2220 NEXT K
2230 NEXT Y
2240 RETURN
```



FOR SALE

STAR STX-80 thermal printer, 3 rolls of paper, Tasword, Tas-print. Like new. $ 80. Max Schoenfeld, 371-1096, no calls after 10 P.M. please.

Here is another FREE AD:
FOR SALE: a TS-1000 & RAMPACK This unit is in excellent condition! It's all in the original box and has manual, power supply and all cables. Also including some literature.
CALL: 216-257-3888 or write to: Frank P. Dunkelberg, 5723 Marine Pkwy, Mentor on the Lake, OH., 44060

FIRST IN A SERIES

There are a number of reasons why you may want to make copies of your TS2068/Spectrum programs. You may have a program that doesn't load reliably, you may just want to have a spare copy in the event that your original program fails to load. Another use of copying programs is to allow you to shorten the loading time by elimination SCREEN$s. In any case, by following along with this series, not only will you learn how to make back up copies of your programs, but you'll also learn a lot about the inner workings of your computer.

"NORMAL" PROGRAMS

The most common scheme for loading programs is by loading a small BASIC loader program under whose control other program parts are loaded. Since these parts can be BASIC, code, or data arrays, I will refer to them as files. A typical program may load a SCREEN$, a section of code, and maybe another BASIC program. If these files are preceded by a "tape header", they are considered to be "normal".

A tape header is the short (17 bytes) bit of information that precedes the main file. The header includes the name, type, and length of the file. If the file is a BASIC program, the header also includes the starting line number of the program if there is one. If the file is code, the header includes the address from which the code was saved. The infor- mation in the header isn't available to the computer user without some form of "header reader".

A header reader is an absolute must to start cracking into programs. Listing #1 is a simple header reader that works on the TS2068 in either the TS or Spectrum mode.

SAVING NORMAL PROGRAMS

1. Try loading the loader program and pressing BREAK. If This crashes the program, try merging the loader program. If it still crashes, try copying another program, and wait for next month's installment on stopping unstoppable programs.
2. Load the header reader program. Rewind the loader program and read the headers on the tape. Make sure that each file has a header. It may be very helpful to copy the infor- mation to the printer for later reference. Listen to the tape if you have doubts. Very high pitched sounds, or thin loading lines are clues that the program may be a fast loader. (Uncopyable by this method.)
3. Assuming that you've got this far, reload the loader program, and stop the program. Save the program using the command SAVE "filename"LINE x, where x is the starting line number as determined by the header reader program.
4. Load the next section of the program as determined by the header reader. If the next section of the program is a code file 30000 bytes long, loaded from address 35000, enter: LOAD ""CODE. Then save the code with the command SAVE "filename" CODE 35000,30000. Continue saving the program portions until the entire program is saved.
5. Rewind your copy tape, and try loading it. If the program works, congratulations! If the program fails to work, try the procedures again. If it still doesn't work, read next month's column.
6. A final hint. Some programs load code into the system variables of memory. (23552 - 23733) Instead of loading the code into the system variables area of memory, load the code into higher memory, and save the bytes from high memory. Then modify the loader program to load the bytes into the correct address. This will prevent the program from crashing when the code is loaded while trying to make the copy.

NEXT MONTH: Stopping unstopable and unmergable programs. listing the unlistable, and number misdirection. **JACK**

Here is LISTING # 1

```
  10 REM *   HEADER READER   *
Works on TS-2068 or TS-2068 with
Spectrum ROM in either mode.
  20 FOR n=50000 TO 50044: READ
a: POKE n,a: NEXT n
  30 DATA 221,33,216,214,175,55,
33,252,0,205,94,195,24,19,243,24
5,219,255,203,255,211,255,219,24
4,50,124,195,62,1,211,244,241,23
3,58,124,195,211,244,203,191,211
,255,251,201,0
  40 LET a$="Program   No.Array
 Chr.Array Code       ": REM 6
spaces after "CODE"
 100 CLS : PRINT TAB 8;"Start R
ecorder": RANDOMIZE USR 50000
 110 CLS : FOR n=55001 TO 55010:
 PRINT  CHR$  PEEK n;: NEXT n: P
RINT
 120 LET a= PEEK 55000: LET b=a*
10+1: LET c=b+9: FOR n=b TO c: P
RINT a$(n);: NEXT n: PRINT
 130 LET l= PEEK 55011+256* PEEK
 55012: PRINT l;" bytes long"
 140 LET l= PEEK 55013+256* PEEK
 55014
 150 IF a=3 THEN  PRINT "Address
 ";l
 160 IF (a=0 AND l=32768) THEN
PRINT "No starting line number"
 170 IF (a=0 AND l <> 32768) THE
N  PRINT "Starting line: ";l
 180 PRINT ""     ""C"" COPY
""N"" NEXT"
 190 LET b$= INKEY$ : IF b$="c"
THEN  FOR n=0 TO 5: FOR a=0 TO 3
1: LPRINT  SCREEN$ (n,a);: NEXT
a: NEXT n
 200 IF b$="" THEN  GO TO 190
 210 GO TO 100
```

April Editorial

Howdy! Can you believe that almost 1/4 of 1986 is over already?! I know that I can't! This year is just flying by for me. In less than ONE month the May T/S COMPUTER FEST will be here! I plan to be there. I sure hope you plan to be there too! I'm sure that it will be a fantastic event! You will see on this page a print out sent to me by Dave Hoshor that includes the companies and groups signed up as of 3/22/86. It was sent by Jack Robrtson from T/S Connection. As most of you know, we will have a table there. If you haven't sent your form yet, GET IT IN! (the form is in the FEB. RAMTOP)

On the inside of the last page, you will see a SURVEY. It was suggested by one of our out of state members, Joan Kealy. I think that it is a good idea. I hope that you will all cooperate and fill it out and send it to me. I need the information so as to update my files and give me a better idea just what equipment is out there. This does NOT mean that we plan to stop having articles for the 1000/1500! It DOES mean that we may start having articles dealing with such items as the QL, its software and hardware, Disk drives (the many out there!), and other new items that may be of interest to all of you. I know, for instance, that many of you now have modems that didn't 6 months or a year ago. It will also help in planning hardware projects. If you have ANY advice as to how to improve the RAMTOP, you are welcome to include a letter with the survey! PLEASE this time let's have a good return of these so I have a good representation of just what's out there and what your interests are now! THANK YOU!

In closing, I want to thank you ALL for your wonderful support of YOUR newsletter (and if I do say so myself, one of the best!) the RAMTOP! I am sorry to say that if my work load at my job increases to the point that has been projected this summer, we may have to get a new editor. It looks like I may be putting in over 20 hours OT a week this summer!

#: 24690 S4/Timex/Sinclair
23-Mar-86 04:34:21
Sb: T/S Computer Fest
Fm: Jack (T/S Connection) 75036,136
To: ALL

OK boys and girls, here is an updated list of Dealers/Vendors that will be exhibiting at the Fest. If you can't find your favorite dealer on this list, you just don't have a favorite. Aerco, Inc.; Budget Computers; Budget Robotics; Brice Rd. Computers; Cinti Users Group; Cleveland Users Group; Columbus Users Group; Computer Shopper; Computer Trader; Curry Computers; Damco Enterprises; Dayton Users Group; E. Arthur Brown; Frank Davis; G. Russell Electronics; JRC Software; Knighted Computers; Peech II Productions; RMG Enterprises; SUM; SyncWare; T/S Connection; TS Horizons; Time Designs; Variety Sales; WMJ Data Systems; Zebra, Inc. This will be the biggest gathering of T/S Dealers and Users that has come ttogether since day one. Make your plans now to be in Cincinnati, May 3 and 4 for The Midwest Timex/Sinclair Computer Fest.

Enter command, N for next message or <CR> for menu : n

There is another Computer Fest form on page 7.

Those of you that have the Interfac one may find this of interest.

INTERFACE 1 / 2050 MODEM FIX

Until recently, there was a problem for those users of the 2050 modem and the Microdrive/ Interface I. The devices used port addresses that were incompatible. Now a fix is available to rewire your modem to use an address that is agreeable to the Microdrive from Dave Clifford 13910 Halldale Ave., Gardena, Cal. 90249 The best part is the price: FREE!

The instructions are well written and illustrated. I completed the modification to my modem in about an hour. After modifying the modem, fourteen POKES are made to update the MTERM program to use the new port addresses.

In talking with Dave, he said that he is working on acquiring the rights to an English terminal program that allows the use of 64 columns and XMODEM transfer protocol.

David Hoshor

1986 MIDWEST T/S COMPUTERFEST - - ADVANCE REGISTRATION -
May 3rd & 4th 1986

NAME: _____

ADDRESS: _____

CITY, STATE, ZIP _____

#_____Individual Registrations @ $4.00.....$_____
#_____Family Registrations @$7.00.....$_____
(deadline for advance rate is March 15th.- after that add $1.00)

Send this form together with your check or money order to:
The Midwest T/S Computerfest
3832 Watterson Ave.
Cincinnati, Ohio 45227

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If you would like to subscribe to the RAMTOP please fill out this form and send it to the listed address along with a check for: $15/Year or $7.50/ 6 mo. to become a member of our Group (Attend meetings, use library tapes Ect.) or: $12/Year or $6/ 6 months to receive the RAMTOP only. Please make checks payable to the RAMTOP!

****

Please print! Enclosed: $_____ for 1 year__ / 6 months__
*
NAME: _____ PHONE: _____
*
STREET: _____
*
CITY: _____ STATE: _____ ZIP: _____
*
Type of computer(s) and peripheral(s) you own: _____
*
_____
*. *THANK YOU for your interest!* Please send to: *
Robert Parish, 12706 Leeila Ave., Cleveland, OH 44135

****

THE GREATER CLEVELAND AREA SINCLAIR USERS GROUP EQUIPMENT SURVEY

****

Please print! (I would like your phone # for the files only!)

NAME: _____ PHONE: _____

STREET: _____ CITY: _____ STATE: ____ ZIP: ____

COMPUTERS YOU OWN: _____

Which do you use most? _____

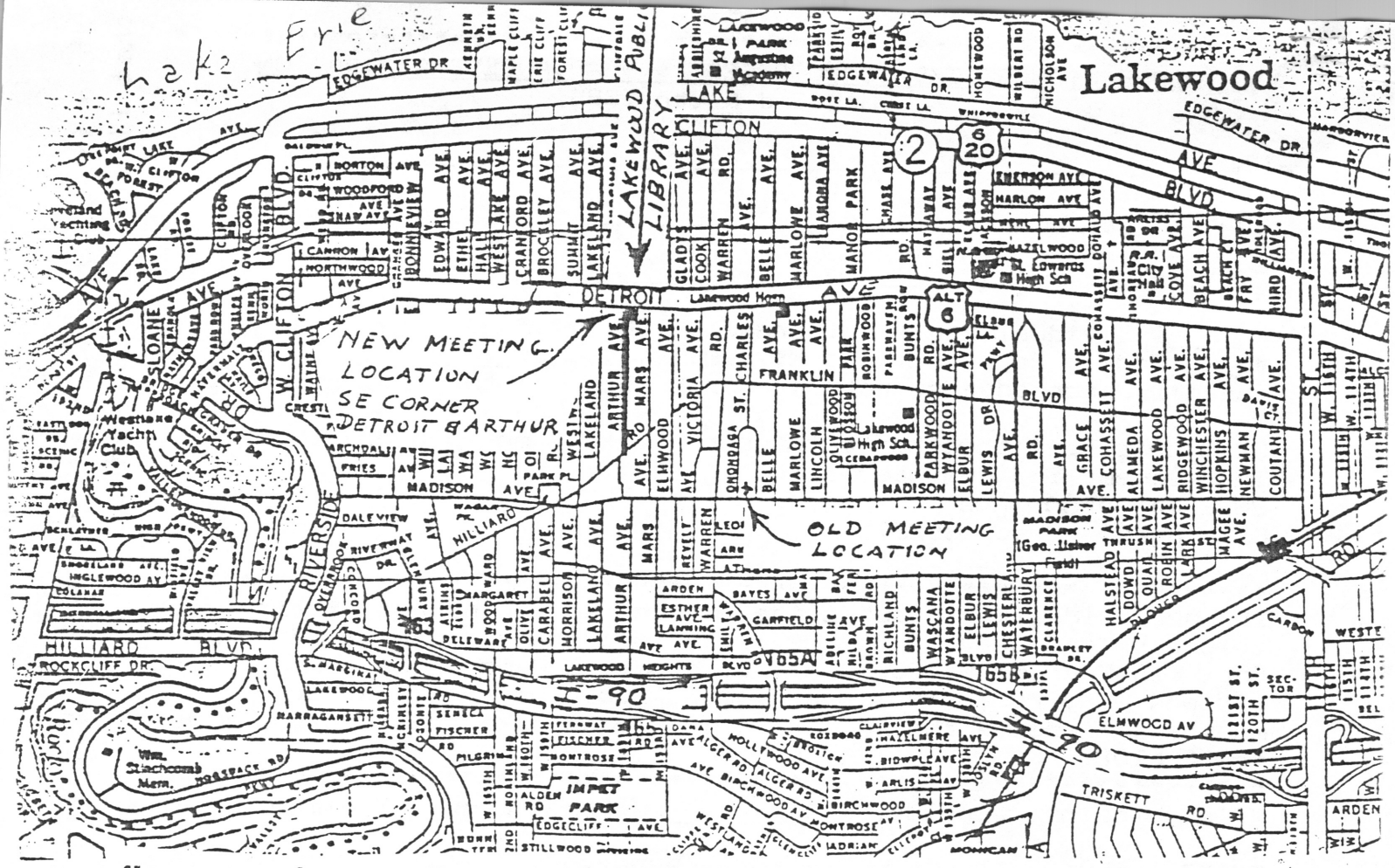
PRINTER(S): _____

OTHER EQUIPMENT: _____

Your computing interests: _____
If you need more room, use the back or a seperate sheet. Send to JAMES G. DuPuy, 6514 Bradley Ave.(DOWN), Parma, OH, 44129

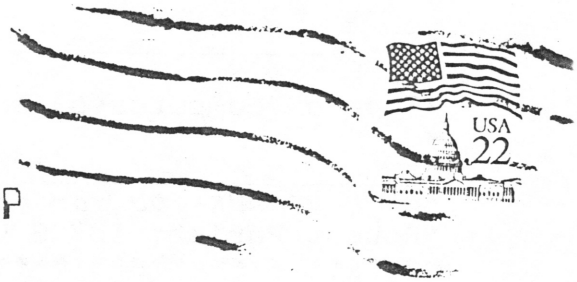
****

Here is another form for the T/S COMPUTER FEST. Please note that it will cost an extra dollar.



Here is the map for the NEW WEST SIDE LOCATION! PLEASE NOTE!!!

8



From:
THE GREATER CLEVELAND SINCLAIR USERS GROUP
James G. DuPuy (Editor)
6514 Bradley Ave.(Down)
Parma, Ohio 44129

TO:

Spero, Al
1227 Julius Weil Dr.#207A
Mayfield Heights,Ohio
44124

86/06/06

FIRST CLASS MAIL